REMARKS

Favorable reconsideration is respectfully requested.

The claims are 12-24.

The above amendment is responsive to the rejections under 35 U.S.C. 112 at the top of page 4 of the Official Action.

With regard to the Examiner's comment concerning the Information Disclosure Statement, submitted herewith is a copy of the references cited in the previous Information Disclosure Statement which have not been considered by the Examiner. If it is necessary to pay a PTO fee for the consideration of such references, please charge same to the Deposit Account of undersigned 23-0975.

Claim 12 has been rejected as being unpatentable over Derwent-Acc-No: 1981-54812D in view of Schwer (U.S. 4,447,265).

This rejection is respectfully traversed.

The purpose of the lime based flux described in the document Derwent-Acc-No: 1981-54812D is to create some gas to "help mix the slag". Here calcium nitrate is added to a material already containing calcium oxide. Foaming of the slag is not mentioned. This is a completely different application than using calcium nitrate to create a foaming slag in electric arc furnaces when stainless steels are produced.

In Schwer, carbon and a source of calcium oxide is used for foaming of the slag. The source of calcium preferred in this patent is lime and dolomitic lime. This is completely differently from and unsuggestive of using calcium nitrate for the same purpose, although one of the final decomposition products of calcium nitrate is CaO. CaO is, in the present invention, **not involved** in the foaming process, but is rather an end/by-product of the calcium nitrate foaming process. It is the evolution of gases during decomposition of calcium nitrate and reaction with carbon that foams the slag. The combination of these two references is therefore unsuggestive of the present claims.

Claim 18 has also been rejected as being unpatentable over Derwent-Acc-No: 1981-54812D in view of Schwer (U.S. 4,447,265) as applied to claim 12 above and further in view of Masucci (U.S. 5,395,420).

With regard to the first two references, the above comments are applicable.

This claim is specific to the production of foaming stainless steel slag.

The Masucci patent describes the use of limestone (calcium carbonate) to foam stainless steel slag, which is a mined mineral and is completely different from and unsuggestive of the artificially produced calcium nitrate. This limestone is also a source of CaO. It is carbon dioxide produced by different reactions, that foams the slag according to this patent and thus it would not be obvious for a skilled person to use calcium nitrate instead.

In order to obtain the foamed slag, a complex process comprising several steps must be followed including supply of oxygen. The process according to Masucci neither discloses nor suggests the process steps of claim 18, including adding FeSi, Al or Mg to the slag before adding calcium nitrate and carbon into the slag by an injection gas.

Lastly, claims 13-17 and 19 to 24 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Derwent Acc No. 1981-54812D in view of Schwer (U.S. 4,447,265) as applied to claim 12 above, or further in view of Masucci (U.S. 5,395,420) as applied to claim 18 above, and further in view of Rossborough (U.S. 5,358,550).

This rejection is also respectfully traversed.

The above comments are also applicable here in addition to which it should be noted that to inject solid components into a slag is of course not novel or unobvious, however, the preferred methods of injecting calcium nitrate and carbon into the slag as presently claimed are neither disclosed nor suggested by the cited references alone or in combination.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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